

Inclusive, Sustainable, Prosperous and Resilient Health Systems in Asia and the Pacific

INSPIRE Health Forum

7-11 July 2025 • A Hybrid Event



Parallel Session 43

Global Heat Health Information Network: The Unseen Impacts of Chronic Heat and the Critical Role of Health Data

13:15-14:30 PM Manila time
Thursday 10 July 2025
Auditorium 1

Presentation

Heat Warning System Development and Considerations for Chronic Heat

Ms. Jorybell A. Masallo

Assistant Weather Services Chief,
Climatology and Agrometeorology
Division, Department of Science and
Technology - Philippine Atmospheric,
Geophysical and Astronomical Services
Administration (DOST - PAGASA)



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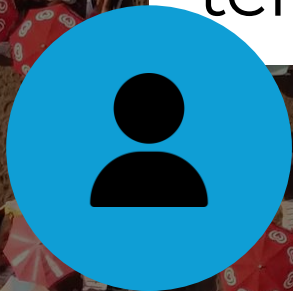


HEAT WARNING SYSTEM DEVELOPMENT AND CONSIDERATIONS FOR CHRONIC HEAT

JORYBELL A. MASALLO
DOST-PAGASA

HEAT INDEX

is what the temperature feels like to the human body when air temperature is combined with humidity



**REAL
FEEL**



**APPARENT
TEMPERATURE**



**INIT
FACTOR**



**DAMANG
INIT**

WHO ARE MOST AT RISK?



children



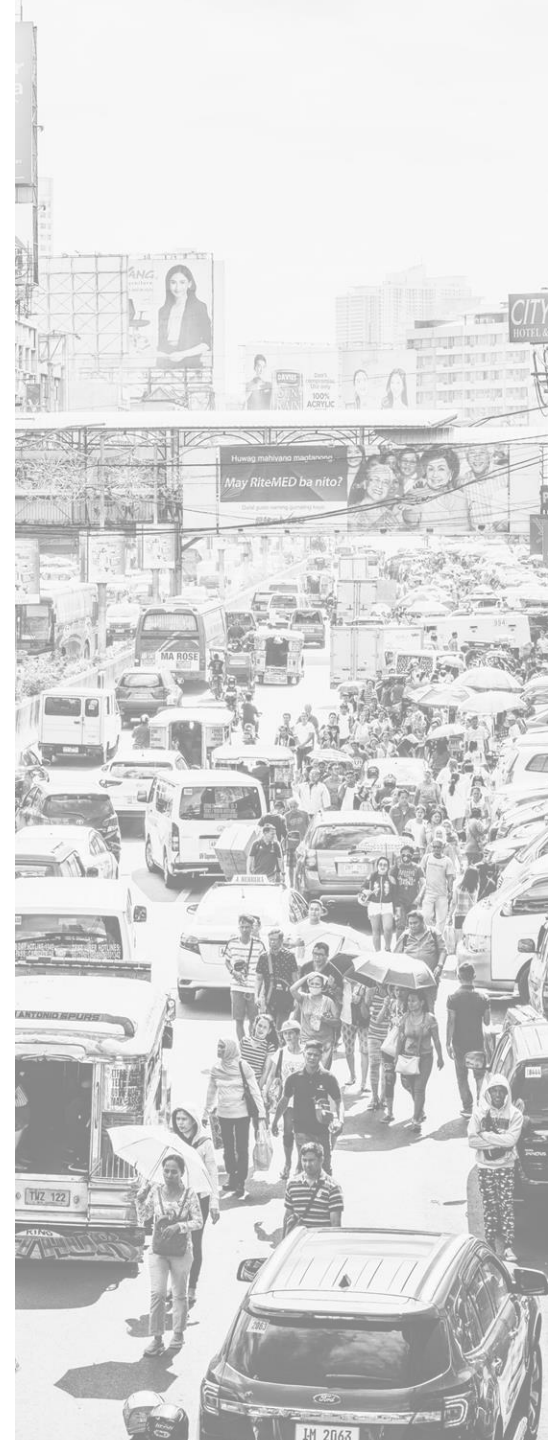
elderly



outside workers



PWD





27 - 32°C
Caution

Fatigue is possible with prolonged exposure and activity. Continuing activity could lead to heat cramps.

33 - 41°C
Extreme Caution

Heat cramps and heat exhaustion are possible. Continuing activity could lead to heat stroke.

42 - 51°C
Danger

Heat cramps and heat exhaustion are likely; heat stroke is probable with continued exposure.

52°C
Extreme Danger

Heat stroke is imminent.

HEAT INDEX OPERATIONAL ISSUANCE

2010

Preliminary stage of development. Internal issuance of HI was done within IAAS only.

2013

Initial public issuances of HI were done for key cities only.

2015

Monitoring and forecasts were regularly issued. Public awareness and popularization thru various media platforms were made.

2018

NWP WARP (forecasts were integrated to HI forecasts); primary responsibilities were transferred to TAMSS / WD

2022

Significant changes were done, including the automation of the entire processes.

Present

ECMWF forecasts were utilized in the calculation of the heat index.
iHeatMAP



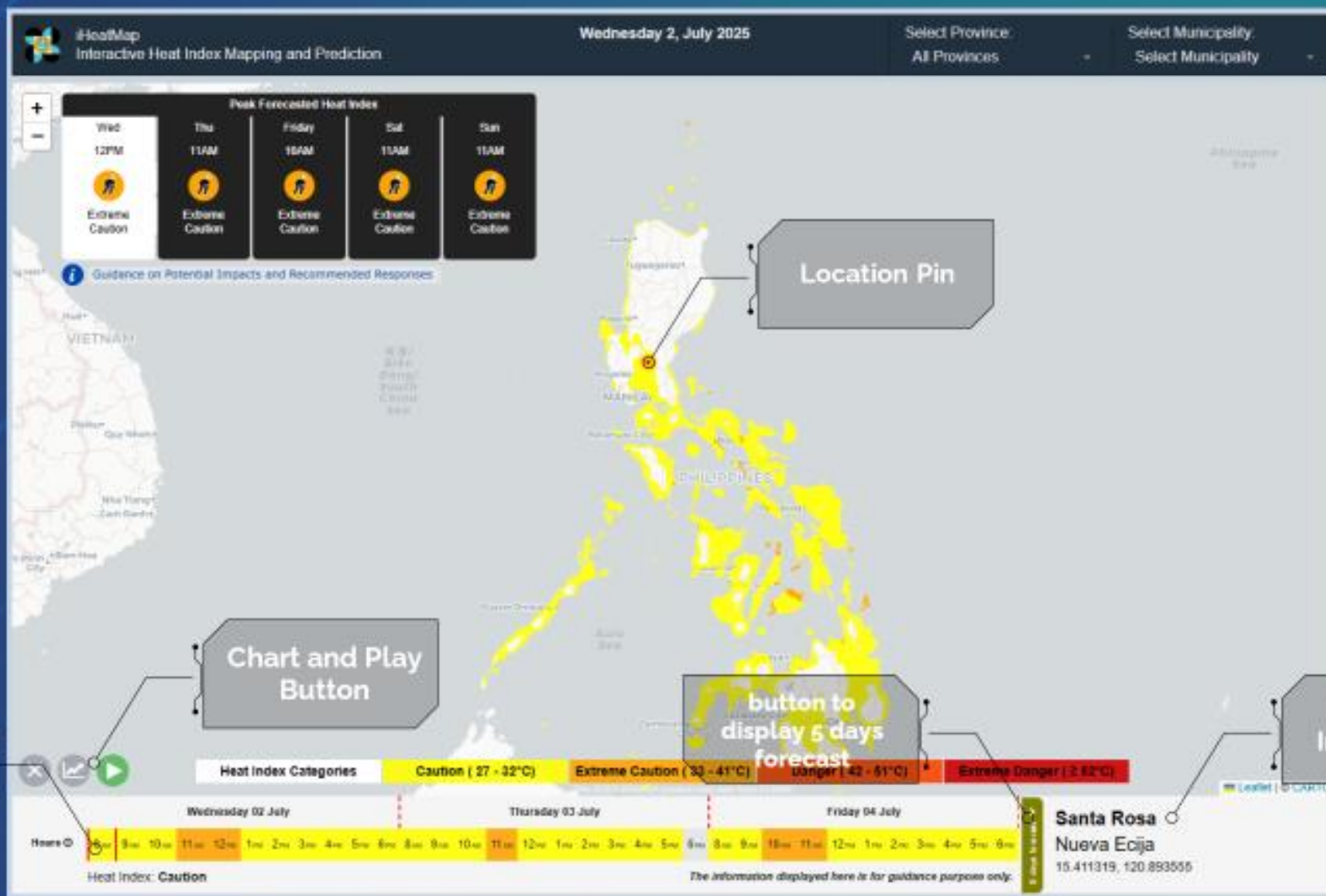
73 PAGASA Stations

Google Earth
Airbus



DOST-PAGASA

iHeatMap



Clickable
Hourly
Forecast Table



SENATE OF THE PHILIPPINES

19th Congress

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Press Release
May 8, 2023

SENATOR MARK VILLAR WANTS A STRONGER HEAT INDEX MONITORING SYSTEM IN THE COUNTRY

Senator Mark A. Villar filed Resolution No. 590 urging the proper Senate Committee to conduct an inquiry in aid of legislation to develop and strengthen the existing heat index monitoring system in the Philippines similar to the alert system used during other calamities.

"Ako po ay naghain ng resolution dahil sa mga ulat na nakarating sa atin na mayroong insidente kung saan 120 na mag-aaral ang dinala sa mga ospital sa Laguna matapos silang mahilo habang isinasagawa ang fire drill sa kanilang paaralan sa Cabuyao City. Isa pa dito ang isang insidente na nangyari kamakailan lamang sa isang pagdiriwang sa Taytay, Palawan na siyamnapu ang nahilo't hinimatay dahil sa sobrang init", Senator Mark Villar said.

The inquiry aims to assess the current status of heat index monitoring and warning systems in the country, identify the potential impacts of extreme heat on public health and the economy, and determine the best practices and technologies on heat index monitoring and alert systems in other countries.

"Dapat magbigay din ng warning ang PAGASA for instances na sobrang init na sa mga lugar dito sa Pilipinas. By providing our countrymen with sufficient and early information through text messages and other technologies we can save lives and prevent any other heat-related incidents to occur. Kung meron tayo sa bagyo, mas dapat meron for heat index." Villar explained.

News

Thursday, May 18

- Statement of Senator Jinggoy Estrada on the signing of amendments to RA 11709
- Tolentino lauds pilot testing of internet voting for OFWs in 2025 polls
- Robbin Seeks Death Penalty for Law Enforcers Involved in Smuggling
- Gatchalian's Mental Health Action Day message: Gov't should address 'mental health pandemic'
- Opening statement of Senator Risa Hontiveros on Agricultural Smuggling Hearing
- Opening Statement of Senator Cynthia A. Villar during the Committee Hearing on Senate Bill No. 1963 or the Anti-Agricultural Smuggling Court

[news archives...](#)

Ongoing GAA-funded project: **Development of an Early Warning System for Monitoring and Forecasting Heat-Health Hazard**

Objective: establishment of a heat-hazard monitoring system to be used for deriving a local heat stress index necessary for providing public advisories/warnings for the occurrence of extremely high temperature in the Philippines

Target area and population: the basic education students in public schools in NCR who are highly exposed to extreme heat

Progress:

- Ongoing procurement of heat-hazard monitoring instrument (WBGTs)
- Initial coordination with DepEd and heads of NCR public schools for the identification of project site (based on records of heat-stress related cases)



THANK YOU!

gano ba kainit ang PANAHON?

Ang init na nararamdaman ng katawan ng tao (apparent temperature) ay hindi akmang nasusukat gamit lamang ang temperatura ng hangin (air temperature). Ito ay mas tamang naitataya kung isasama ang datos ng alinsangan o halumigmig (relative humidity). Ang impormasyon na ito ay tinatawag na Heat Index (damang init) at ito ay matutukoy gamit ang Heat Index Chart na nasa kanan.

Mula Marso hanggang Hunyo, ang DOST-PAGASA ay nagbibigay ng **Heat Index monitoring and forecast information** na makikita online sa sumusunod na website:

<https://bagong.pagasa.dost.gov.ph/weather/heat-index>

MAHALAGANG IMPORMASYON SA KALIGTASAN TUNGKOL SA MGA SAKIT NA DULOT NG INIT*

SANTI

- Matagal na pagkababad sa mataas na temperatura
- Matinding pisikal na aktibidad sa mainit na panahon
- Edad (Matatanda at Sanggol)
- Mataas na halumigmig (Humidity)
- Obesity
- Matagal o labis na pag-inom ng alak

SINTOMAS

- Matinding pagpapawis
- Matinding pagkapagod o panghihina
- Pagkahilo o pagiging mapantambot
- Pagkawala ng malay o pagkahilo kapag tumayo
- Mahina pero mabilis na pulso
- Pakiramdam ng pagduduwal

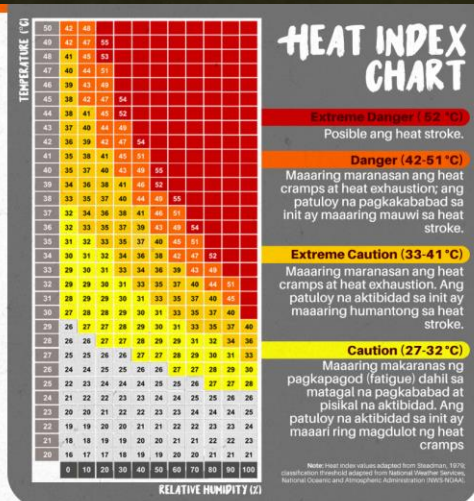
PAG-IWAS

- Limitahan ang oras sa Labas
- Uminom ng maraming tubig
- Iwasan ang Tsaa, Kape, Soft Drinks, at Alak
- Gumamit ng payong, sombrero, at Damit na may manggas
- Isagawa ang mabibigat na gawain sa malamig na oras ng araw.

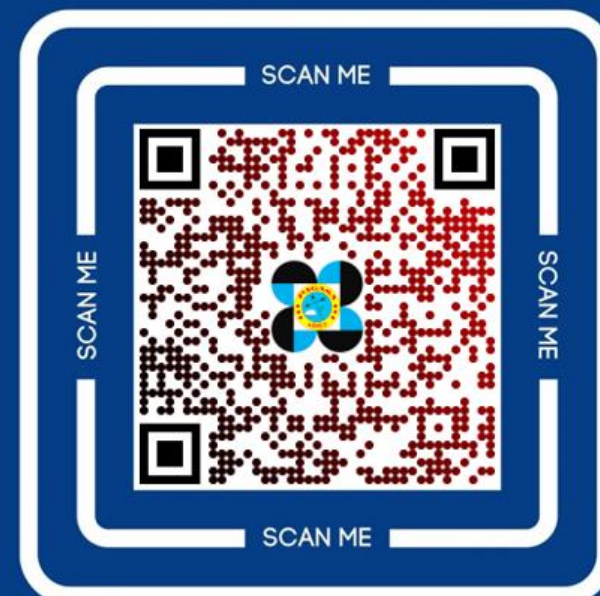
PANGUNANG-LUNAS

- Ilipat sa ilim, ihiga na nakataas ang paa, at painumin ng malamig na tubig kung may malay.
- Alisin ang sobrang kasuotan, basain ang balat, at bigyan ng bentilasyon.
- Maglagay ng yelo sa kilikili, pulso, bukong-bukong, at singit.
- Dalhin agad sa ospital.

Sources: * 1) Health Advisory on Heat Stroke, Department of Health 2) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC115792/>, The Assessment of Subtleties, Part I: A Temperature-Humidity Index Based on Human Physiology and Clothing Science, Journal of Applied Meteorology and Climatology, 1973, 12(1), 47-52. Retrieved Mar 2, 2022, from https://journals.ametsoc.org/view/journals/apmc/12/1/47-52/19730102_0102_0101_0000_0000_0000_0000.pdf



iHeatMap



<https://www.pagasa.dost.gov.ph/weather/heat-index>



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